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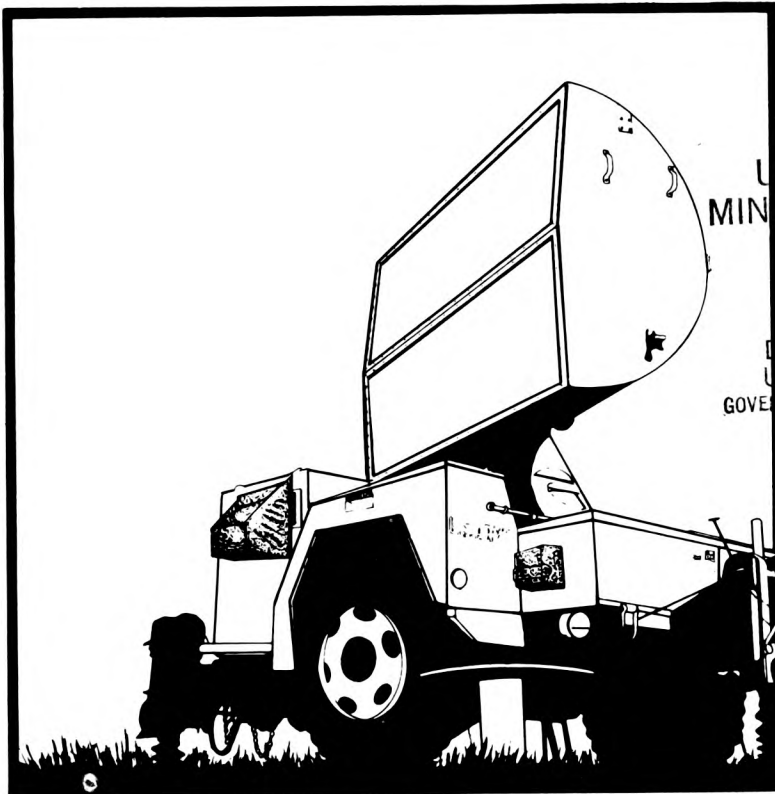
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IMPROVED HAWK CONTINUOUS WAVE RADAR REPAIRER



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MOS 24K

TRAINER'S GUIDE

HEADQUARTERS, DEPARTMENT OF THE ARMY

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HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC, 30 November 1981

TRAINER'S GUIDE
MOS 24K
IMPROVED HAWK CONTINUOUS WAVE RADAR REPAIRER

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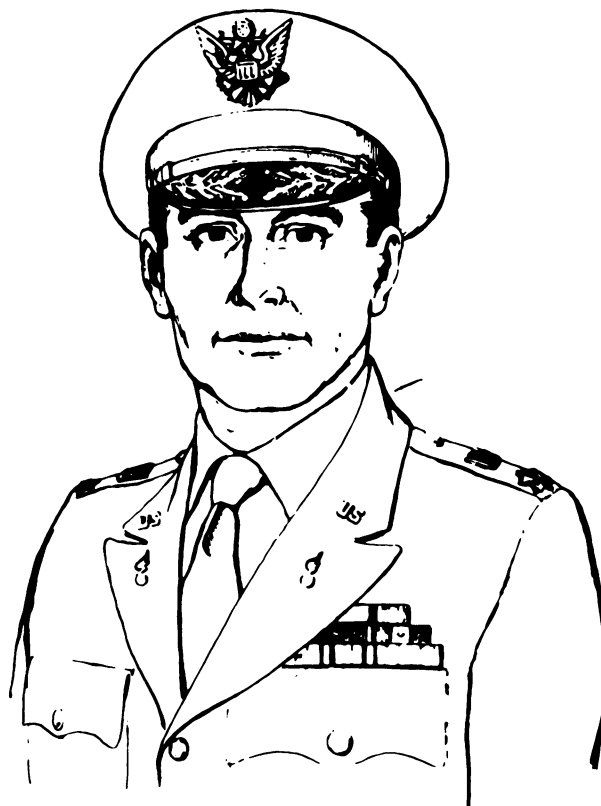
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*This publication supersedes FM 9-24K/CM, 2 October 1978, including all changes.

Users of this publication are encouraged to recommend changes and submit comments for its improvement. Comments should be keyed to the specific page, paragraph, and line in the text in which the change is recommended. Provide reasons for each comment to insure understanding and complete evaluation. Comments should be prepared using DA Form 2028 (Recommended Changes to Publication) and forwarded to:

Commandant
US Army Missile and Munitions Center and School
ATTN: ATSK-TDA
Redstone Arsenal, AL 35897

The words "he," "him," "his," and "men," when used in this publication, represent both the masculine and feminine genders unless specifically stated.



**ATTENTION
COMMANDER!**

**DISTRIBUTE THIS GUIDE TO ALL OFFICERS AND
SENIOR NCOs WHO HAVE ENLISTED PERSONNEL
OF MOS 24K UNDER THEIR COMMAND OR SUPER-
VISION.**

The Trainer's Guide is designed to provide the commander, training manager, and the trainer some of the information required to plan, conduct and evaluate training for a particular MOS. The Trainer's Guide lists all tasks found in the Soldier's Manual for the MOS. It references primary training materials required for each task and indicates the locations for "Qualification" and "Additional" training. It also contains appendixes.

This Trainer's Guide was prepared by the US Army Missile and Munitions Center and School.

Harry L. Foradori

Harry L. Foradori
Colonel, Ordnance Corps
Commandant

LORY ARMORY



RESERVE COMPONENT COMMANDER'S ATTENTION

RESERVE COMPONENTS

The information on this page is for you, the Reserve Component Trainer. Although this manual lists the critical tasks to be performed by the Active Army soldier in this MOS on equipment available in the Active Component inventory, most tasks in this manual are applicable to Reserve Component soldiers without changes. However, some tasks may require modification because of differences of equipment, facilities, and training time available. Because of these differences, the Reserve Component Trainer will need to be innovative and seek ways to enable the soldiers to accomplish these critical tasks.

Chapter 1

INTRODUCTION

PURPOSE

Your Trainer's Guide gives you, the unit commander, the training manager, and the trainer, some of the information you need to help plan, conduct, and evaluate unit training. Unit training is the most important job of military leaders.

The training manager and the trainer must do their jobs right. When soldiers are trained, they do their jobs right and in turn complete the unit's mission. Your Trainer's Guide can help you tailor training to the specific needs of the soldiers and to evaluate that training. It lists the tasks that MOS 24K skill level 1, 2, and 3 soldiers must know, where the tasks are taught, and the basic information needed to set up individual training. Use this Trainer's Guide along with the Soldier's Manual, FM 9-24K, Improved HAWK Continuous Wave Radar Repairer; TC 9-24K1/2(JB), Improved HAWK Continuous Wave Radar Repairer; FM 21-2, Soldier's Manual of Common Tasks, Skill Level 1; and FM 21-2, Soldier's Manual of Common Tasks, Skill Levels 2, 3, and 4.

COMMANDER'S RESPONSIBILITY

The commander is responsible for the unit mission. Soldier's can't do their job if they haven't learned how. For the unit to succeed you must insure each soldier is satisfactorily trained. This Trainer's Guide and the Trainer's Guides for FM 21-2 and FM 21-3 give you, your training manager, and your trainers some of the information needed to plan, conduct, and evaluate training for MOS 24K.

TRAINING MANAGER'S RESPONSIBILITY

You are responsible for planning, evaluating, monitoring, and providing the resources for training. The Improved HAWK Continuous Wave Radar Repairer must learn and become proficient in several tasks. The tasks in FM 9-24K Soldier's Manual, are listed in chapters 2 and 3 and cover some of the following—

- Land Navigation
- Transportation
- Leadership
- First Aid
- Weapon Proficiency
- Vehicles and Equipment
- Maintenance and Repair
- Supply

Skill Level 1 and 2 tasks selected from FM 9-24K, FM 21-2, and FM 21-3 are listed in TC 9-24K1/2(JB).

Each Soldier's Manual tells you and the soldier:

- What TASKS the soldier is expected to perform.
- Under what CONDITION the task is done.
- The STANDARD the soldier must reach to do the tasks.
- The PERFORMANCE MEASURES needed to complete the task.
- What REFERENCES are needed to help do the task.

You must make a training plan trainers can use; provide for the resources (building, room, area, equipment, supplies, funds, training aids and devices, and so forth); monitor the training to make sure it meets the needs of the soldiers; and evaluate the training when it is completed.

TRAINER'S RESPONSIBILITY

You must prepare, conduct, and critique training. Use the training plan to find out what must be taught, where, when, and to whom. When planning training, don't rely solely on your own knowledge of the subject. Review reference materials to insure you use the latest information. Use TC 21-5-7, Training Management in Battalions, and FM 21-6, How to Prepare and Conduct Military Training, for basic guidance.

INDIVIDUAL TRAINING PROGRAM

For each soldier to be trained, you need an individual training program to plan, train, and evaluate training. Use the task list for MOS 24K in chapters 2 and 3 of the Trainer's Guide to make your individual training plans. Each task is listed (task number, task title, primary references for the task, the skill level of training, and where the training for the task is done). A letter in a column shows where the training is done, formal training in a school, or unit training. The letter "Q" shows where QUALIFICATION training is done, the letter "A" shows where ADDITIONAL training is done. The task list shows those tasks taught in Advanced Individual Training and the tasks taught in the unit through supervised on-the-job training, scheduled training, and self study.

At appendix A of the Trainer's Guide is a consolidated list of references for the tasks; appendix B is the job description for MOS 24K.

TRAIN AND RETRAIN

Skills not practiced are soon lost. Athletics is a good example of why training and retraining is needed. Athletes must practice to retain their skills. The soldier is no different. For athletes, the coach sees to it that all team members are trained in their tasks. You, like the coach, must see to it that your team is trained to do its job. As a trainer you must verify, after a proper amount of time, that soldiers can do their job. Feedback from supervisors using Job Books will help. Design your training program to correct areas that have been determined through performance evaluation as needing improvement. You can get more feedback from the SQT unit profile summary sheet. It shows the number and percentage of soldiers failing each task. Continued evaluation will give you information for the Individual Training Program.

ENLISTED PERSONNEL MANAGEMENT SYSTEM (EPMS)

For the first time, enlisted personnel have a complete career development program: The Enlisted Personnel Management System. It affects the training, evaluation, classification, and promotion of every enlisted soldier in the Army. The system is designed to provide career incentives, progression, and professionalism, while providing qualified people to carry out the Army's mission.

PAY GRADE		SKILL LEVEL		SQT TAKEN
E8 - E9	↔	5	↔	NONE
E7	↔	4	↔	SQT 4
E6	↔	3	↔	SQT 3
E5	↔	2	↔	SQT 2
E1 - E4	↔	1	↔	SQT 1

CAREER PROGRESSION

There are five skill levels in the Air Defense Missile Maintenance Field, and there is a Soldier's Manual for each skill level in each MOS. MOS 24K emerges into MOS 24V4, Improved HAWK Maintenance Chief. The soldier can continue in the 24V track to skill level 5. See the following MOS progression chart.

The Improved HAWK Continuous Wave Radar Repairer must have a CONFIDENTIAL security clearance and must successfully complete the Army's Improved HAWK Continuous Wave Radar Repairers course.



SKILL QUALIFICATION TEST (SQT)

The skill level 1 soldier is evaluated by the SQT. The skill level 2 and 3 soldier is evaluated by the SQT and senior enlisted evaluation report (SEER). Soldiers are then classified and considered for promotion. The skill qualification test is a yearly test designed to test the soldier's ability to perform the tasks at the skill level held and the lower skill levels in the MOS.

SQT PARTS

The SQT is based on the tasks in FM 9-24K, FM 21-2, and FM 21-3, and may consist of three parts.

- **SKILL COMPONENT.** This part tests the soldier's knowledge of those tasks that cannot easily be tested by the hands-on method.
- **HANDS-ON COMPONENT.** This part tests the soldier's ability to perform selected tasks on the TOE or TDA equipment.

NOTE: ALTERNATE HANDS-ON COMPONENT. This part is a written test to be used when it is not practical to administer the hands-on component.

- **JOB SITE COMPONENT.** This part consists of tasks that are not suited for skilled qualification testing for either the skill or hands-on components. They are long or complex tasks. You or your designated representative certify the soldier has done the tasks satisfactorily on the job.

SQT NOTICE

Soldiers receive their SQT notice and Job Site Component Booklet 90 days before the SQT. Each notice lists the tasks in the SQT. They are selected from FM 9-24K, FM 21-2, and FM 21-3. The first SQT a soldier takes (SQT 1, SQT 2 and so on) depends on the pay grade held. Soldiers are tested once a year in their primary MOS. To successfully prepare for the SQT, your soldiers need the above manuals.

SQT SCORE

The SQT score is used to verify the soldier's present skill level or to make the soldier eligible to be considered for promotion.

- If the soldier makes a score of 60 percent or more it is proof of proficiency in the MOS at the present skill level. The soldier verifies the skill level held.
- If a soldier doesn't pass the test, the soldier is not qualified at that skill level. The test must be taken again. Another failure, and the soldier becomes subject to reclassification.

SQT FEEDBACK

About 30 days after the SQT, you get an SQT unit profile summary sheet that shows the number and percentage of soldiers in your unit who pass or fail the test. Each soldier also receives a notice of test results with a list of tasks failed, if any. You get a copy of each soldier's test results to evaluate the strengths and weaknesses of individual skills.

ARMY TRAINING AND EVALUATION PROGRAM (ARTEP)

The ARTEP lists the collective tasks that must be performed by the unit under given conditions and to given standards. The association between the individual tasks of the Soldier's Manuals and the collective tasks of the ARTEP is a critical relationship. The collective tasks of the ARTEP are composed of the individual tasks identified in the Soldier's Manuals. The ability of your unit to perform collective tasks is based on each soldier's mastery of individual tasks. ARTEP 9-58, Perishing and HAWK/NIKE General Support Missile Maintenance Companies, is one of the best tools you have for training and evaluating your unit. As a training tool use it to train soldiers to work together to do mission tasks and use it to evaluate their training. The ARTEP gives you:

- a list of selected tasks in your unit's TOE mission,
- conditions under which the tasks must be performed,
- standards that define the acceptable performance of the tasks, and
- a system for using performance-oriented training to help in developing an effective training program.

FEEDBACK

The SQT gives you feedback on individuals and the ARTEP gives you feedback on your unit. This feedback must be supplemented by your evaluation of your unit's level of performance. You must be able to track your soldier's and your unit's progress through the necessary training that leads to mission success. Unannounced testing is the best way to determine the level of proficiency of your unit. Additional feedback on the state of training for each soldier includes the use of administrative data and files to determine turnover, institutional training background, and experience levels. For skill level 1 and 2 soldiers, the Job Book is a valuable source that identifies training deficiencies.

Once you have identified areas that need additional emphasis, use the Soldier's Manual and the ARTEP to structure your training. You must train your soldiers to do the tasks in their present skill level and then train them to do the tasks in the next higher skill level.

Evaluate each individual soldier's ability to do the tasks in Soldier's Manuals. Evaluate the unit's ability to do its ARTEP missions. Feedback from the SQT and the ARTEP can provide a solid foundation on which you can build a successful training program.

NONCOMMISSIONED OFFICER EDUCATION SYSTEM (NCOES)

Training under EPMS prepares soldiers for the skill levels they hold and the next higher skill level. The following chart shows the levels of training.

The training consists of Advanced Individual Training for skill level 1 and on-the-job experience or formal training for skill levels 2 through 5.

For MOS 24K formal school training is first level training. It prepares the E4 soldier, skill level 1, for the duties of the E5, skill level 2. There is no formal training for skill level 2 and 3 tasks. All these tasks are trained in the unit under supervised on-the-job training, self study, and on-the-job experience. Other tasks are trained in the unit also. The following chart shows some of the Training the 24K soldier can get during a career in the Army.

MOSs	SKILL LEVEL	GRADE	TRAINING	SELECTION	EVALUATION
24H 24J 24K 24L	1	E1-E4	Advanced Individual Training	Volunteer & Army Acceptance	SQT 1
	2	E5	*Primary Leadership Training	Supervisor or Commander	SQT 2 SEER
	3	E6	*Advanced NCOES	Department of the Army	SQT 3 SEER
24V Improved HAWK Maintenance Chief	4	E7	Improved HAWK Maintenance Chief	Department of the Army	SQT 4 SEER
	5	E8-E9	*Sergeants Major Academy	Department of the Army	SEER

*Noncommissioned Officer Education System—
not all soldiers at these skill levels get this training.

Figure 1. Training

Second-level training prepared the E5 skill level 2 soldier for duty at grade E6, skill level 3.

The Primary Leadership Course (PLC) is given at the installation level. It is for the soldiers you select as having the potential to become NCOs. The PLC develops those training and leadership skills needed by an NCO. You should insure that your best soldiers are given the opportunity to attend this course. It will enhance their advancement potential and provide better-trained leaders for your unit.

An Advanced NCO Course (ANCOC) for E6s, also given at USAMMCS, trains soldiers for grade E7. Students for this course are selected by Department of the Army.

The Senior NCO Course (SNCOC) trains selected E8s and E9s. Senior Courses include the Sergeants Major Academy (E8s only), an operations and intelligence extension training program, and a unit administration course for first sergeants.

ADDITIONAL TRAINING

Additional training upgrades the effectiveness of your personnel, and thus, your unit. You can use service school training, installation school training, and unit training for any training needed to qualify soldiers in their skill level and prepare them for duty at the next skill level.

Prime considerations for training are time, training areas, and available assets. Training away from the unit has much appeal, but time, facilities, or funds limit or prohibit use of major training areas, more local training should be used. Imaginative trainers and maximum use of available training aids and devices can make the most of available assets. There are many valuable tools to help improve the unit's performance. Integration of training with the individual tasks in the Soldier's Manual and with the collective tasks in the ARTEP is a good start for a comprehensive training plan.

TRAINING REFERENCES

The references listed after each task in the Trainer's Guide are the same as those in the Soldier's Manual, FM 9-24K. A consolidated list of references is in appendix A.

- DA publications are listed in the DA Pam 310 series publications. Get them through your publication channels.
- Graphic Training Aids are listed in DA Pam 108-1, Index of Army Motion Pictures and Related Audio-Visual aids. Get them from your Training and Audio-Visual Support Centers.
- Training Extension Course (TEC) are listed in ETM Status List, published by US Army Training Support Center, Ft. Eustis, VA 23604. Your unit is authorized certain TEC lessons. TC 21-5-3, TEC Management Instruction, explains how TEC equipment is used.
- Army Correspondence Courses are listed in DA Pam 351-20, Army Correspondence Course Program Catalogs.
- Miscellaneous references. The source is given.

TRAINING AIDS

Good training aids are a valuable asset to a training program because they add validity and realism to the instruction and allow the trainers to get the point across with more impact. If used properly training aids simplify preparation of instruction. See appendix A of FM 21-6, How to Prepare and Conduct Military Training, for the list of training and audio-visual support centers.

Chapter 2

SHARED TASKS

SKILL LEVELS 1, 2, AND 3

TASK NUMBER	TITLE	PRIMARY TRAINING MATERIALS	INITIAL TRAINING LEVEL	RESPONSIBILITY FOR TRAINING										
				INSTITUTION							UNIT			
				BT	AIT	PTC	PLC	ANCO	SNCO	SGMA	SOJT	SELF STUDY	SCD TNG	
SKILL LEVELS 1														
FIRST AID														
081-831 —1010	Give First Aid for Snakebite	FM 21-11	1									Q	A	A
BATTLEFIELD SURVIVAL														
551-721 —1020	Utilize Proper Defense Procedures When Ambushed or Attacked	FM 21-305 TM 55-30	1									Q	A	A
551-721 —1021	Take Passive Defense Measures Against Air Attacks	FM 21-305 FM 55-30	1									Q	A	A
TRANSPORTATION														
551-721 —1016	Drive Vehicle in Motor March or Convoy	FM 21-305 FM 55-30	1									Q	A	A
551-721 —1030	Fill Out SF 91 (Operator's Report of Motor Vehicle Accident)	FM 21-305	1									Q	A	A
551-721 —1031	Fill Out DD Form 518 (Accident Identification Card)	FM 21-305	1									Q	A	A
WEAPON PROFICIENCY														
071-311 —2006	Use Limited Visibility Firing Techniques with the M16A1 Rifle	None	1									A	A	A

TASK NUMBER	TITLE	PRIMARY TRAINING MATERIALS	INITIAL TRAINING LEVEL	RESPONSIBILITY FOR TRAINING												
				INSTITUTION						UNIT						
				BT	AIT	PTC	PLC	ANCO	SNCO	SGMA	SOJT	SELF STUDY	SCTD TNG			
SKILL LEVEL 2																
LAND NAVIGATION																
071-329 -1004	Determine the Elevation of a Point on the Ground, Using a Map	FM 21-26 FM 21-26-1 TEC Lesson 930-071-0016-F	2	Q							A	A	A			
071-329 1010	Determine Azimuth, Using a Coord- inate Scale and Protractor	FM 21-26 FM 21-26-1 TEC Lesson 930-071-0014-F GTA 5-2-9	2								Q	A	A			
071-329 1015	Locate an Unknown Point on a Map or on the Ground by Resection	FM 21-26 FM 21-26-1 TEC Lesson 930-071-0018-F	2								Q	A	A			

TASK NUMBER	TITLE	PRIMARY TRAINING MATERIALS	INITIAL TRAINING LEVEL	RESPONSIBILITY FOR TRAINING							
				INSTITUTION							UNIT
				BT	AIT	PTC	PLC	ANCOC	SNCOC	SGMA	
				SELF STUDY	SCD TNG						
SKILL LEVEL 3											
LEADERSHIP											
121-030	Prepare the Rater's/Indorser's/ -3501 Reviewer's Sections of a Senior Enlisted Evaluation Report	AR 623-205	3					A		Q	A
093-420	Submit Recommendations for -3113 Favorable Personnel Actions	AR 600-200 AR 672-5-1	3					A		A	Q
093-420	Recommend Unfavorable -3121 Personnel Actions	AR 600-200 AR 601-280 FM 22-100 FM 22-101 MCM, 1969 (Rev.Ed)	3							A	Q
VEHICLES AND EQUIPMENT											
093-408	Prepare Vehicle Loading -3001 Plan	FM 9-59 FM 29-23 FM 55-65 TM 55-603	3							A	Q

TASK NUMBER	TITLE	PRIMARY TRAINING MATERIALS	INITIAL TRAINING LEVEL	RESPONSIBILITY FOR TRAINING												
				INSTITUTION								UNIT				
				BT	AIT	PTC	PLC	ANCOC	SNCOC	SGMA	SOUT	SELF STUDY	SCD TNG			
SKILL LEVEL 3																
093-420 —3119	Direct Performance of Motor Stables	DA Pam 750-1 TM 38-750	3									A	Q			
SUPPLY																
073-420 —3120	Maintain Property Accountability	AR 710-2 FM 9-59	3									A	Q			

Chapter 3

DUTY POSITION TASKS

SKILL LEVELS 1, 2, AND 3

TASK NUMBER	TITLE	PRIMARY TRAINING MATERIALS	INITIAL TRAINING LEVEL	RESPONSIBILITY FOR TRAINING							
				INSTITUTION						UNIT	
				BT	AIT	PTC	PLC	ANCOC	SNCOC	SGMA	SOJT
SKILL LEVEL 1											
REPAIR IMPROVED HAWK EQUIPMENT IN A NUCLEAR, BIOLOGICAL, AND CHEMICAL (NBC) ENVIRONMENT											
093-420	Repair Improved HAWK Equipment	FM 21-40 FM 21-48 TM 3-220 TM 10-277	1		Q						A
—1021	in an NBC Environment										
SHOP SAFETY PROCEDURES											
081-831	Rescue on Electrical	FM 21-11 TEC Lessons: 911-441-0024-F 911-441-0026-F 911-441-0029-F	1		Q						A
—0006	Shock Victim										

TASK NUMBER	TITLE	PRIMARY TRAINING MATERIALS	INITIAL TRAINING LEVEL	RESPONSIBILITY FOR TRAINING							
				INSTITUTION						UNIT	
				AIT	PTC	PLC	ANCOG	SNCOC	SGMA	SOJT	SELF STUDY
				BT							
SKILL LEVEL 1											
DA FORMS AND RECORDS											
093-420 —1101	Prepare DA Form 2402	TM 38-750	1	Q						A	
093-420 —1102	Prepare DA Form 2407 and DA Form 2407-1	TM 38-750	1	Q						A	
093-420 —1104	Prepare DA Form 2404	TM 38-750	1	Q						A	
093-420 —1107	Prepare DA Form 2765-1	AR 710-2									
093-420 —1111	Prepare DA Form 2416	TM 38-750 TB 43-180 TB 43-180-1	1	Q						A	
093-420 —1112	Prepare DD Form 314	TM 38-750	1	Q						A	
093-420 —1113	Prepare DA Form 2408-5	TM 38-750	1	Q						A	
093-420 —1114	Prepare DA Form 2405	TM 38-750	1	Q						A	
PUBLICATIONS											
121-004 —1415	Post Regulations and Directives	DA Pam 310-13 TEC Lessons 500-121-8125-F 500-121-8126-F	1	1							A

TASK NUMBER	TITLE	PRIMARY TRAINING MATERIALS	INITIAL TRAINING LEVEL	RESPONSIBILITY FOR TRAINING							
				INSTITUTION						UNIT	
SKILL LEVEL 1											
TEST EQUIPMENT, IMPROVED HAWK MISSILE SYSTEM											
093-420 —1124	Operate the AN/USM 281C Oscilloscope	TM 11-6625-2658-14 TEC 11-102-906-1011-A ACCP Subcourse MM 0925	1							Q	A
093-420 —1126	Operate the Electrical Cable Test Set AN/GSM-45	TM 9-4935-262-14 TEC Lessons: 121-093-6913-A 121-093-6914-A 121-093-6915-A	1							Q	A

TASK NUMBER	TITLE	PRIMARY TRAINING MATERIALS	INITIAL TRAINING LEVEL	RESPONSIBILITY FOR TRAINING								
				INSTITUTION							UNIT	
				BT	AIT	PTC	PLC	ANCOG	SNCOG	SGMA	SOJT	SELF STUDY
SKILL LEVEL 1												
093-420 -1140	Operate the Calibrator Standard	TM 9-4935-1548-14	1		Q						A	
093-420 -1141	Opeate the TS-505 Electronic Multimeter	TM 11-5511 TM 11-6625-239-12	1		Q						A	
093-420 -1142	Operate the AN/PSM-6 Multimeter	TM 11-6625-475-10	1		Q							
093-420 -1143	Operate and Maintain the TV-7/U Electron Tube Test Set	TM 11-6625-274-12 TEC Lesson 102-906-1081-A	1								Q	
093-420 -1144	Operate the ZM-21A/U Ohmmeter	TM 11-2050	1								A	
093-420 -1145	Operate the Electronic Voltmeter (10105385)	TM 9-4935-501-14	1								Q	
093-420 -1146	Operate the 8125A John Fluke Digital Multimeter	TM 9-4935-542-12	1		Q						A	

TASK NUMBER	TITLE	PRIMARY TRAINING MATERIALS	INITIAL TRAINING LEVEL	RESPONSIBILITY FOR TRAINING							
				INSTITUTION						UNIT	
				BT	AIT	PTC	PLC	ANCOG	SNCOG	SGMA	SOJT
SKILL LEVEL 1											
PREVENTIVE MAINTENANCE ON TEST EQUIPMENT											
093-420 -1156	Perform Scheduled Maintenance on the AN/USM-281C Oscilloscope	TM 11-6625-2658-14 TM 38-750	1	Q							
093-420 -1160	Perform Scheduled Maintenance on the TS-505 Electronic Multimeter	TM 11-6625-239-12 TM 11-5511 TM 38-750	1	Q							
093-420 -1163	Perform Preventive Maintenance on the AN/PSM-6 Multimeter	TM 11-6625-475-10 TM 38-750	1	Q							
HIGH FREQUENCY CONSOLE SELF-TEST											
093-426 -1180	Perform the High Frequency Console (HFC) Self-Test	TM 9-4935-1540-14-1 TM 38-750	1	Q							

TASK NUMBER	TITLE	PRIMARY TRAINING MATERIALS	INITIAL TRAINING LEVEL	RESPONSIBILITY FOR TRAINING									
				INSTITUTION						UNIT			
				BT	AIT	PTC	PLC	ANCOG	SNCOC	SGMA	SOJT	SELF STUDY	SCD TNG
SKILL LEVEL 1													
IMPROVED HIGH-POWERED ILLUMINATOR RADAR MAINTENANCE													
093-432 -1100	Repair Receiver Circuits	FM 9-59 TM 9-1425-525-12-4 TM 9-1430-533-12-1 TM 9-1430-533-12-2-1 TM 9-1430-533-12-2-2 TM 9-1430-533-12-3 TM 9-1430-533-12-4 (vol I-IX) TM 38-750	1	Q							A		
093-432 -1101	Repair Radar Set Group Circuits	FM 9-59 TM 9-1425-525-12-4 TM 9-1430-533-12-1 TM 9-1430-533-12-2-1 TM 9-1430-533-12-2-2 TM 9-1430-533-12-3 TM 9-1430-533-12-4 (vol I-IX) TM 38-750	1	Q							A		

TASK NUMBER	TITLE	PRIMARY TRAINING MATERIALS	INITIAL TRAINING LEVEL	RESPONSIBILITY FOR TRAINING								
				INSTITUTION						UNIT		
				BT	AIT	PTC	PLC	ANCOG	SNCOC	SGMA	SOJT	SELF STUDY
SKILL LEVEL 1												
093-432 -1103	Repair Low-Voltage Power Supply Circuits	FM 9-59 TM 9-1430-533-12-1 TM 9-1430-533-12-2-1 TM 9-1430-533-12-2-2 TM 9-1430-533-12-3 TM 9-1430-533-12-4 (vol I-IX) TM 38-750	1	Q							A	
093-432 -1104	Repair Simulator Control Group Circuits	FM 9-59 TM 9-1425-525-12-4 TM 9-1430-533-12-1 TM 9-1430-533-12-2 -1 (U) -2 TM 9-1430-533-12-2 TM 9-1430-533-12-3 TM 9-1430-533-12-4 (vol I-IX) TM 38-750	1	Q							A	

TASK NUMBER	TITLE	PRIMARY TRAINING MATERIALS	INITIAL TRAINING LEVEL	RESPONSIBILITY FOR TRAINING										
				BT	AIT	PTC	PLC	ANCOC	SNCOC	SGMA	SOJT	SELF STUDY	SCD TNG	
SKILL LEVEL 1			1		Q							A		
093-432	Repair Main Power and Filament Power	FM 9-59												
-1105	Supply Circuits	TM 9-1425-525-12-4												
		TM 9-1430-533-12-1												
		TM 9-1430-533-12-2-1												
		TM 9-1430-533-12-2-2												
		TM 9-1430-533-12-3												
		TM 9-1430-533-12-4												
		(vol I-IX)												
		TM 38-750												

TASK NUMBER	TITLE	PRIMARY TRAINING MATERIALS	INITIAL TRAINING LEVEL	RESPONSIBILITY FOR TRAINING							
				BT	AIT	PTC	PLC	ANCOG	SNCOG	SGMA	UNIT
SKILL LEVEL 1											
093-432 -1106	Repair Antenna Positioning Circuits	FM 9-59 TM 9-1425-525-12-4 TM 9-1430-533-12-1 TM 9-1430-533-12-2-1 TM 9-1430-533-12-2-2 TM 9-1430-533-12-3 TM 9-1430-533-12-4 (vol I-IX) TM 38-750	1	Q						A	SOJT SELF STUDY SCD TNG
IMPROVED CONTINUOUS WAVE ACQUISITION RADAR MAINTENANCE											
093-432 -1111	Repair Transmitter Circuits	FM 9-59 TM 9-1425-525-12-4 TM 9-1430-1528-12-1 TM 9-1430-1528-12-2 -1 TM 9-1430-1528-12-2 -2 TM 9-1430-1528-12-3 TM 9-1430-1528-12-4 (vol I-IV) TM 38-750 ACCP Subcourse MM 0937	1	Q						A	A

TASK NUMBER	TITLE	PRIMARY TRAINING MATERIALS	INITIAL TRAINING LEVEL	RESPONSIBILITY FOR TRAINING													
				INSTITUTION							UNIT						
				BT	AIT	PTC	PLC	ANCOG	SNCOG	SGMA	SOJT	SELF STUDY	SCD TNG				
SKILL LEVEL 1																	
093-432 -1112	Repair Receiver Circuits	FM 9-59	1	Q									A	A			
		TM 9-1425-525-12-4															
		TM 9-1430-1528-12-1															
		TM 9-1430-1528-12-2															
		-1															
TM 9-1430-1528-12-2	-2																
TM 9-1430-1528-12-3																	
TM 9-1430-1528-12-4																	
(vol I-IV)																	
TM 38-750																	
ACCP Subcourse																	
MM 0937																	
093-432 -1113	Repair Signal Processor Circuits	FM 9-59	1	Q									A	A			
		TM 9-1425-525-12-4															
		TM 9-1430-1528-12-1															
		TM 9-1430-1528-12-2															
		-1															
TM 9-1430-1528-12-2	-2																
TM 9-1430-1528-12-3																	
TM 9-1430-1528-12-4																	
(vol I-IV)																	
TM 38-750																	
ACCP Subcourse																	
MM 0937																	

TASK NUMBER	TITLE	PRIMARY TRAINING MATERIALS	INITIAL TRAINING LEVEL	RESPONSIBILITY FOR TRAINING													
				INSTITUTION						UNIT							
				BT	AIT	PTC	PLC	ANCOG	SNCOC	SGMA	SOJT	SELF STUDY	SCD TNG				
SKILL LEVEL 1																	
093-432 -1114	Repair Main Power and Power Supply Circuits	FM 9-59	1	Q													
		TM 9-1425-525-12-4															
		TM 9-1430-1528-12-1															
		TM 9-1430-1528-12-2															
		-1															
		TM 9-1430-1528-12-2															
		-2															
		TM 9-1430-1528-12-3															
		TM 9-1430-1528-12-4															
		(vol I-IV)															
		TM 38-750															
		ACCP Subcourse															
		MM 0937															
093-432 -1115	Repair Antenna Positioning Circuits	FM 9-59	1	Q													
		TM 9-1425-525-12-4															
		TM 9-1430-1528-12-1															
		TM 9-1430-1528-12-2															
		-1															
		TM 9-1430-1528-12-2															
		-2															
		TM 9-1430-1528-12-3															
		TM 9-1430-1528-12-4															
		(vol I-IV)															
		TM 38-750															
		ACCP Subcourse															
		MM 0937															

TASK NUMBER	TITLE	PRIMARY TRAINING MATERIALS	INITIAL TRAINING LEVEL	RESPONSIBILITY FOR TRAINING								
				INSTITUTION						UNIT		
				BT	AIT	PTC	PLC	ANCOG	SNCOG	SGMA	SOJT	SELF STUDY
SKILL LEVEL 1												
093-432 -1116	Repair Display System Circuits	FM 9-59 TM 9-1425-525-12-4 TM 9-1430-1528-12-1 TM 9-1430-1528-12-2 -1 TM 9-1430-1528-12-2 -2 TM 9-1430-1528-12-3 TM 9-1430-1528-12-4 (vol I-IV) TM 38-750 ACCP Subcourse MM 0937	1	Q							A	A
093-432 -1117	Perform Confidence Checks	FM 9-59 TM 9-1430-1528-12-1	1	Q							A	
IMPROVED HIGH-POWERED ILLUMINATOR												
RADAR (IHIPIR) MAINTENANCE (HIGH FREQUENCY CONSOLE)												
093-432 -1128	Repair High-Voltage Regulator	FM 9-59 TM 9-1425-525-12-4 TM 9-1430-533-24P TM 9-1430-533-34-1 TM 38-750	1	Q							A	

TASK NUMBER	TITLE	PRIMARY TRAINING MATERIALS	INITIAL TRAINING LEVEL	RESPONSIBILITY FOR TRAINING							
				INSTITUTION							UNIT
				BT	AIT	PTC	PLC	ANCOC	SNCOC	SGMA	SOUT
				SELF STUDY	SCTD TNG						
SKILL LEVEL 1											
093-432 -1129	Repair Azimuth or Elevation Control Amplifier	FM 9-59	1	Q						A	
		TM 9-1425-525-12-4									
		TM 9-1430-533-24P									
		TM 9-1430-533-34-1									
		TM 38-750									
093-432 1130	Repair Bridge Nulling Amplifier and Cavity Tuner	FM 9-59	1	Q						A	
		TM 9-1425-525-12-4									
		TM 9-1430-533-24P									
		TM 9-1430-533-34-1									
		TM 38-750									
093-432 -1131	Repair Signal Comparator	FM 9-59	1	Q						A	
		TM 9-1425-525-12-4									
		-1									
		TM 9-1430-533-24P									
		TM 9-1430-533-34-1									
	TM 38-750										

TASK NUMBER	TITLE	PRIMARY TRAINING MATERIALS	INITIAL TRAINING LEVEL	RESPONSIBILITY FOR TRAINING										
				INSTITUTION					UNIT					
				BT	AIT	PTC	PLC	ANCO	SNCO	SGMA	SOJT	SELF STUDY	SCD TNG	
SKILL LEVEL 1														
093-432 -1134	Repair Radar Set Control	FM 9-59 TM 9-1425-525-12-4 TM 9-1430-533-24P TM 9-1430-533-34-1 TM 38-750	1		Q						A			
093-432 -1135	Repair Range and Azimuth Control Amplifier	FM 9-59 TM 9-1425-525-12-4 -1 TM 9-1430-533-24P TM 9-1430-533-34-1 TM 38-750	1		Q						A			

TASK NUMBER	TITLE	PRIMARY TRAINING MATERIALS	INITIAL TRAINING LEVEL	RESPONSIBILITY FOR TRAINING									
				INSTITUTION						UNIT			
				BT	AIT	PTC	PLC	ANCOG	SNCOG	SGMA	SOJT	SELF STUDY	TSCD TNG
SKILL LEVEL 1													
093-432 -1139	Repair -320, -285, ±50 V dc Power Supply	FM 9-59 TM 9-1425-525-12-4 TM 9-1430-533-24P TM 9-1430-533-34-1 TM 38-750	1		Q						A		
093-432 -1140	Repair Tracker 1	FM 9-59 TM 9-1425-525-12-4 TM 9-1430-533-24P TM 9-1430-533-34-1 TM 38-750	1		Q						A		

TASK NUMBER	TITLE	PRIMARY TRAINING MATERIALS	INITIAL TRAINING LEVEL	INSTITUTION								UNIT		
				BT	AIT	PTC	PLC	ANCOG	SNCOG	SGMA	SOJT	SELF STUDY	SCD TNG	
093-432 -1144	IMPROVED CONTINUOUS WAVE ACQUISITION RADAR (ICWAR) MAINTENANCE (HIGH FREQUENCY CONSOLE) Repair High-Voltage Power Supply (HVPS)	FM 9-59 TM 9-1425-525-12-4 TM 9-1430-1528-24P TM 9-1430-1528-34-1 TM 38-750	1		Q						A			
SKILL LEVEL 1														

TASK NUMBER	TITLE	PRIMARY TRAINING MATERIALS	INITIAL TRAINING LEVEL	RESPONSIBILITY FOR TRAINING							
				INSTITUTION							UNIT
				BT	AIT	PTC	PLC	ANCOG	SNCOC	SGMA	SOJT
				SELF STUDY	SCD TNG						
SKILL LEVEL 1											
093-432 -1145	Repair Jam Comparator	FM 9-59 TM 9-1425-525-12-4 TM 9-1430-1528-24P TM 9-1430-1528-34-1 TM 38-750	1	Q						A	
093-432 -1146	Repair Receiver-Transmitter Built-In Test Equipment (BITE) Assembly	FM 9-59 TM 9-1425-525-12-4 TM 9-1430-1528-24P TM 9-1430-1528-34-1 TM 38-750	1	Q						A	

TASK NUMBER	TITLE	PRIMARY TRAINING MATERIALS	INITIAL TRAINING LEVEL	RESPONSIBILITY FOR TRAINING									
				INSTITUTION					UNIT				
				BT	AIT	PTC	PLC	ANCO	SNCO	SGMA	SOJT	SELF STUDY	SCD TNG
SKILL LEVEL 1				1	Q						A		
093-432 -1147	Repair the Horizontal Amplifier Power Supply	FM 9-59 TM 9-1425-525-12-4 TM 9-1430-1528-24P TM 9-1430-1528-34 TM 38-750											

TASK NUMBER	TITLE	PRIMARY TRAINING MATERIALS	INITIAL TRAINING LEVEL	RESPONSIBILITY FOR TRAINING							
				INSTITUTION							UNIT
				BT	AIT	PTC	PLC	ANCOG	SNCOG	SGMA	SOJT
SKILL LEVEL 2											
DA FORMS AND RECORDS											
093-420 -2102	Prepare DA Form 2028 (Recommended changes to Publications and Blank Forms)	AR 310-1 AR 310-3	2							Q	
093-420 -2106	Prepare DA Form 2062 (as a Subhand Receipt)	AR 710-2	2							Q	
QUALITY ASSURANCE/QUALITY CONTROL											
093-420 -2152	Perform In Process Inspection	TM 38-750 TM 750-245-4	2							A	Q

TASK NUMBER	TITLE	PRIMARY TRAINING MATERIALS	INITIAL TRAINING LEVEL	RESPONSIBILITY FOR TRAINING							
				INSTITUTION						UNIT	
				AIT	PTC	PLC	ANCOG	SNCOC	SGMA	SOJT	SELF STUDY
				BT							SCD TNG
SKILL LEVEL 2											
TEST EQUIPMENT MAINTENANCE											
093-432 -2121	Repair Radar Target Simulator	FM 9-59 TM 9-1425-525-12-4 TM 9-4935-1540-14-1 TM 9-4935-1540-14-2 TM 38-750 ACCP Subcourse MM 0936	2							Q A	A
093-432 -2122	Repair Phase Modulator Simulator	FM 9-59 TM 9-1425-525-12-4 TM 9-4935-1540-14-1 TM 9-4935-1540-14-2 TM 38-750	2							Q A	A

TASK NUMBER	TITLE	PRIMARY TRAINING MATERIALS	INITIAL TRAINING LEVEL	RESPONSIBILITY FOR TRAINING									
				INSTITUTION							UNIT		
				BT	AIT	PTC	PLC	ANCOQ	SNCOQ	SGMA	SOJT	SELF STUDY	SCD TNG
SKILL LEVEL 2													
093-432 -2127	Repair Improved High-Powered Illuminator/Improved Launcher (IHPIR/ILCHR) Integrated System Malfunction	FM 9-59 TM 9-1425-525-12-1 TM 9-1425-525-12-2 TM 9-1425-525-12-4 TM 9-1430-533-12-1 TM 9-1430-533-12 -2-1 TM 9-1430-533-12 -2-2 TM 9-1430-533-12-3 TM 9-1430-533-12-4 (vol I-IX) TM 9-1430-1526-12-1 TM 38-750	2									Q A	
093-432 -2128	Repair Improved Continuous Wave Acquisition Radar/Improved Battery Control Central/Information and Coordination Central (ICWAR/IBCC/ICC) Integrated System Malfunction	FM 9-59 TM 9-1425-525-12-1 TM 9-1425-525-12-2 TM 9-1425-525-12-4 TM 9-1430-1526-12-1 TM 9-1430-1528-12-1 TM 9-1430-1528-12 -2-2 TM 9-1430-1528-12-3 TM 9-1430-1528-12-4 (vol I-IV) TM 9-1430-1528-12-4 ACCP Subcourse MM 0929	2									Q A	A

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[illegible]

TASK NUMBER	TITLE	PRIMARY TRAINING MATERIALS	INITIAL TRAINING LEVEL	RESPONSIBILITY FOR TRAINING									
				INSTITUTION						UNIT			
				BT	AIT	PTC	PLC	ANCO	SNCOC	SGMA	SOJT	SELF STUDY	SCD TNG
SKILL LEVEL 3													
SUPERVISORY AND MAINTENANCE MANAGEMENT													
093-420 -3101	Direct Performance of Support Maintenance	FM 9-59 TM 38-750 TM 750-245-4	3					Q			A		
073-420 -3102	Direct Performance of Preventive Maintenance	FM 9-59 TM 38-750	3					Q			A		
093-420 -3103	Monitor Status of Assigned Workload	FM 9-59 FM 29-23 TM 38-750	3								A	Q	
093-420 -3104	Inspect Shop/Work Area	FM 9-59	3								A	Q	
093-420 -3105	Provide Technical Assistance to Supported Units	AR 750-1 FM 29-23 ACCP Subcourses MM 0102 MM 0720	3								A	Q	
093-420 -3107	Monitor Shop Safety	AR 385-10 FM 9-59	3								A	Q	
093-420 -3108	Monitor Shop Security	FM 9-59	3								A	Q	
093-420 -3109	Brief Newly Assigned Personnel on Maintenance Activities	FM 9-59	3								A	Q	

TASK NUMBER	TITLE	PRIMARY TRAINING MATERIALS	INITIAL TRAINING LEVEL	RESPONSIBILITY FOR TRAINING													
				INSTITUTION						UNIT							
				BT	AIT	PTC	PLC	ANCO	SNCO	SGMA	SJLT	SELF STUDY	SCD TNG				
SKILL LEVEL 3																	
093-420 -3110	Coordinate Activities Between Repair Sections and Technical Supply	AR 710-2 FM 9-59 FM 29-25	3								A	Q					
093-420 -3112	Coordinate Maintenance Team Operations	FM 9-59 ACCP Subcourses: MM 0102 MM 0720	3								A	Q					
093-420 -3115	Insure Maintenance on Operational Readiness Float Equipment is Performed	FM 9-59 FM 29-25 FM 38-750 TB 43-180	3								A	Q					
093-420 -3117	Maintain Shop Publications	AR 340-18-1 DA Pam 310-4 DA Pam 750-10 DA Pam 310-10 DA Pam 310-13	3								A	Q					
093-420 -3145	Prepare SF 368 (Quality Deficiency Report)	TM 38-750	3								A	Q					

Appendix A

CONSOLIDATED LIST OF REFERENCES

All references containing information on the subjects listed in this Trainer's Guide may not be listed here. New material is constantly being published and present references may become obsolete. See the DA Pam 310 series and instructional material catalogs to keep up-to-date.

ARMY REGULATIONS (AR)

40-5	Health and Environment
310-1	Publications, Blank Forms, and Printing Management
310-2	Identification and Distribution of DA Publications and Issue of Agency and Command Administrative Publications
310-3	Preparation, Coordination, and Approval of Department of the Army Publications
340-18-1	The Army Functional File System: General Provisions
385-10	The Army Safety Program
600-20	Army Command Policy and Procedures
600-200	Enlisted Personnel Management System
601-280	Army Reenlistment Program
623-205	Enlisted Evaluation Reporting System
672-5-1	Military Awards
710-2	Materiel Management for Using Units, Support Units and Installations
750-1	Army Materiel Maintenance Concepts and Policies
750-25-1	Army Test, Measurement, and Diagnostic Equipment (TMDE) Calibration and Repair Support Program

DEPARTMENT OF THE ARMY PAMPHLETS (DA PAM)

310-4	Index To Technical Manuals, Technical Bulletins, Supply Manuals (Types 7, 8, and 9), Supply Bulletins and Lubrication Orders (Available in Microfiche Only)
310-10	Guide for Publications Supply Personnel
310-13	Posting and Filing Publications
750-1	Maintenance Guide for Leaders
750-10	Military Publications: US Army Equipment Index of Modification Work Orders

FIELD MANUALS (FM)

9-59	Missile Support Unit Operations
21-2	Soldier's Manual of Common Tasks, Skill Level 1
21-3	Soldier's Manual of Common Tasks, Skill Levels 2, 3, and 4
21-11	First Aid for Soldiers
21-26	Map Reading
21-26-1	Map Reading

21-40	NBC (Nuclear, Biological, and Chemical) Defense
21-48	Planning and Conducting Chemical, Biological, Radiological (CBR), and Nuclear Defense Training
21-305	Manual for the Wheeled Vehicle Driver
22-5	Drill and Ceremonies
22-100	Military Leadership
22-101	Leadership Counseling
23-12	Technique of Fire of the Rifle Squad and Tactical Application
23-30	Grenades and Pyrotechnic Signals
29-23	Direct Support Maintenance Operations (Nondivisional)
29-25	Direct Exchange, Shop Supply and Operational Readiness Float Procedures
55-30	Army Motor Transport Units and Operations
55-65	Preparation for Unit Movement Overseas by Surface Transportation

TECHNICAL MANUALS (TM)

3-220	Chemical, Biological, and Radiological (CBR) Decontamination
9-1330-200-12	Operator's and Organizational Maintenance Manual for Grenades
9-1425-525-12-1	Operator and Organizational Maintenance Manual: Emplacement of Improved HAWK Air Defense Guided Missile System (Improved HAWK Air Defense Guided Missile System)
9-1425-525-12-2	Operator and Organizational Maintenance Manual: System Functional Diagrams (Improved HAWK Air Defense Guided Missile System)
9-1425-525-12-4	Operator's and Organizational General Maintenance for the Improved HAWK Guided Missile System
9-1430-533-12-1	Operator's and Organizational Maintenance Manual for Improved High-Powered Illuminator Radar Set AN/MPQ-46 (XO-1) (Improved HAWK Air Defense Guided Missile System)
9-1430-533-12-2-1	Operator and Organizational Maintenance Manual Functional Theory and Schematics for Radar Set, AN/MPQ-46 (XO-1) (Improved HAWK Air Defense Guided Missile System) (U)
9-1430-533-12-2-2	Operator's and Organizational Maintenance Manual: Functional Theory and Schematics for Radar Set, AN/MPQ-46 (XO-1) (Improved HAWK Air Defense Guided Missile System) (U)
9-1430-533-12-3	Operator's and Organizational Maintenance Manual Schematics for Improved High Power Illuminator Radar Set, AN/MPQ-46 (XO-1) (Improved HAWK Air Defense Guided Missile System) (U)
9-1430-533-12-4 (1 thru 9)	Operator and Organizational Maintenance Fault Isolation Manual for Improved High-Powered Illuminator Radar AN/MPQ-46 (XO-1) (Improved HAWK Air Defense Guided Missile System (Vol I thru IX)

9-1430-533-24P	Organizational, Direct Support, and General Support Maintenance Repair Parts and Special Tools List (Including Depot Maintenance Repair Parts and Special Tools) for Radar Set, AN/MPQ-46 (X0-1) Improved High Powered Illuminator (NSN 1430-00-782-9816) (Improved HAWK Air Defense Guided Missile System)
9-1430-533-34-1	Direct Support and General Support Maintenance Manual: Units of Radar Set, AN/MPQ-46 (X0-1) Tested at the High-Frequency Console (Improved HAWK Air Defense Guided Missile System) (U)
9-1430-1526-12-1	Operator's and Organizational Maintenance Manual: Improved Guided Missile Battery Control Central AN/TSW-11 (X0-1) (Improved HAWK Air Defense Guided Missile System)
9-1430-1528-12-1	Operator's and Organizational Maintenance Manual for Radar Set AN/MPQ-55 (X0-1) (Improved HAWK Air Defense Guided Missile System)
9-1430-1528-12-2-1	Operator's and Organizational Maintenance Manual Functional Theory and Schematics for Improved CW Acquisition Radar Set, AN/MPQ-55 (X0-1) (Improved HAWK Air Defense Guided Missile System) (U)
9-1430-1528-12-2-2	Operator and Organizational Maintenance Manual Functional Theory and Schematics for Improved CW Acquisition Radar Set, AN/MPQ-55 (X0-1) (Improved HAWK Air Defense Guided Missile System) (U)
9-1430-1528-12-3	Operator's and Organizational Maintenance Manual: Schematics for Improved CW Acquisition Radar Set, AN/MPQ-55 (X0-1) (Improved HAWK Air Defense Guided Missile System)
9-1430-1528-12-4- (1 thru 4)	Operator's and Organizational Maintenance Fault Isolation Manual for Improved CW Acquisition Radar Set AN/MPQ-55 (Improved HAWK Air Defense Guided Missile System)
9-1430-1528-24P	Organizational, Direct Support, and General Support Maintenance Repair Parts and Special Tools List (Including Depot Maintenance Repair Parts and Special Tools) for Radar Set, AN/MPQ-55 (X0-3) (Improved CW Acquisition) (Improved HAWK Air Defense Guided Missile System)
9-1430-1528-34-1	Direct Support and General Support Maintenance Manual for Units of Improved Radar Set, AN/MPQ-55 (X0-1) Tested at the High Frequency Console (Improved HAWK Air Defense Guided Missile System) (U)
9-1440-531-12-1	Operator and Organizational Maintenance Manual: Improved Guided Missile Zero Length Launcher, M192E1: Guided Missile Loading and Storage Pallet, M1E2 and Improved Guided Missile Launching Section Control Box, AN/GSA-132A (X0-1) (Improved HAWK Air Defense Guided Missile System)
9-1440-531-12-2	Operator's and Organizational Maintenance Manual: Functional Theory and Schematics for Improved Guided Missile Zero-Length Launcher, M192E1 and Improved Guided Missile Launching Section Control Box, AN/GSA-132 (X0-1) (Improved HAWK Air Defense Guided Missile System)
9-1440-531-12-3	Operator and Organizational Maintenance Manual: Schematics for Improved Guided Missile Zero Length Launcher, M192E1 and Improved Guided Missile Launching Section Control Box, AN/GSA-132 (X0-1) (Improved HAWK Air Defense Guided Missile System)
9-4935-262-14	Operator, Organizational, Direct Support and General Support Maintenance Manual: Electrical Cable Test Set, AN/GSM-45

9-4935-501-14	Operator, Organizational, DS and GS, Maintenance Manual Operation and Maintenance Instructions for Electronic Voltmeter, FSN 6625-967-1504 (HAWK Air Defense Guided Missile System)
9-4935-542-12	Operator and Organizational Maintenance Manual: Organizational Maintenance for Guided Missile Remote Control System Shop Equipment AN/TSM-112: Guided Missile Test Equipment, OME-GSE and Shop Equipment, GSM-XM1, Improved Platoon Support Van (IPSV) (Improved HAWK Air Defense Guided Missile System)
9-4935-1540-14-1	Operator's Organizational, Direct Support and General Support Maintenance Manual: Guided Missile Remote Control System, Shop Equipment AN/TSM-104, AN/TSM-105, AN-TSM-106, AN-TSM-108, AN-TSM-121, and Supplementary Equipment Guided Missile Test Station AN/TSM-120 (X0-1) (Improved HAWK Air Defense Guided Missile System)
9-4935-1540-14-2	Operator's, Organizational, Direct Support and General Support Maintenance Manual Schematics for Guided Missile Remote Control Shop Equipment AN/TSM-104 (X0-1), AN/TSM-105 (X0-1), AN/TSM-106 (X0-1), AN/TSM-108 (X0-1), AN/TSM-121 (X0-1) and Supplementary Equipment, Guided Missile Test Station, AN/TSM-120 (X0-1) (Improved HAWK Air Defense Guided Missile System)
9-4935-1548-14	Operator's, Organizational, Direct Support, and General Support Maintenance Manual for Periodic Tests Using Calibrator Standard, Digital Multimeter, and Calibration Test Set (Improved HAWK Air Defense Guided Missile System)
10-277	Chemical, Toxicological and Missile Fuel Handlers Protective Clothing
11-2050	Test Set I-48-B and Ohmmeter ZM-21 A/U
11-5511	Electronic Multimeter TS-505/U
11-5805-201-12	Operator and Organizational Maintenance Manual: Telephone Set TA-312/PT
11-6625-239-12	Operator's and Organizational Maintenance Manual: Electronic Multimeters, TS-505A/U and TS-505B/U and Multimeters, TS-505C/U and TS-505D/U
11-6625-274-12	Operator's and Organizational Maintenance Manual: Test Sets, Electron Tube TV-7/U, TV-7A/U, TV-7B/U and TV-7D/U
11-6625-475-10	Operator's Manual: Multimeters AN/PSM-6, AN/PSM-6A, and AN/PSM-6B
11-6625-2658-14	Operator's, Organizational, Direct Support and General Support Maintenance Manual for Oscilloscope, AN/USM-281C
38-750	The Army Maintenance Management System (TAMMS)
55-603	Movement of Military Impedimenta by Commercial Carriers
750-245-4	Direct Support and General Support Quality Control: Inspector's Inspection Criteria

TRAINING BULLETINS (TB)

43-180	Calibration Requirements for the Maintenance of Army Materiel
43-180-1	Calibration and Repair Requirements for the Maintenance of Army Materiel
750-25-1	Maintenance of Supplies and Equipment: Army Test, Measurement, and Diagnostic Equipment (TMDE) Calibration and Repair Support Program

TRAINING EXTENSION COURSE (TEC) LESSONS

043-441-5401-A	Introduction to Improved HAWK Orientation Alinement
102-906-1011-A	AN/USM-281C Oscilloscope Operation
102-906-1012-A	AN/USM-281C Oscilloscope x-y Operation
102-906-1081-A	TV-7/U Tube Tester Operation, Part 1
121-093-6913-A	Identify Controls of the AN/GSM-45 Cable Tester
121-093-6914-A	Prepare the AN/GSM-45 for Test
121-093-6915-A	Operate the AN/GSM-45
121-093-6999-A	In's and Out's of Shop Supply
231-906-1013-A	AN/USM-281C Oscilloscope Z-Axis Operation
231-906-1014-A	AU/USM-281C Oscilloscope S.A.D.I. Operation
500-121-8125-F	Introduction to Posting DA Publications
500-121-8126-F	Posting DA Publications
500-121-8127-A	Introduction to Requisitioning DA Pubs
911-441-0024-F	Basic First Aid Measures: The Lifesaving Steps
911-441-0026-F	Basic First Aid Measures: Restoring the Breathing
911-441-0029-F	Stopping the Bleeding, Part 2 and Controlling for Shock
930-071-0014-F	Measuring Distances and Azimuths
930-071-0016-F	Terrain Features
930-071-0018-F	Navigating with Map and Compass
942-071-0002-F	Hand Grenade Maintenance and Identification

ARMY CORRESPONDENCE COURSE PROGRAM (ACCP)

Subcourse MM 0102	Missile Maintenance Shop Operations
Subcourse MM 0720	Quality Assurance, Quality Control (Missile Maintenance)
Subcourse MM 0928	Improved HAWK System Test Equipment
Subcourse MM 0929	Improved HAWK System Alinement
Subcourse MM 0936	Repair the Improved High Power Illuminator Radar
Subcourse MM 0937	Improved HAWK CW Radar

ADDITIONAL REFERENCES

Manual for Courts Martial, United States (Revised Edition)
 GTA 5-2-10 Coordinate Scale and Protractor

Appendix B
JOB DESCRIPTION
Improved HAWK Continuous Wave
Radar Repairer
(IH CW Rdr Rep)
MOS 24K

SUMMARY

Supervises or performs direct and general support maintenance on Improved HAWK continuous wave radars and associated equipment.

DUTIES

MOSC 24K10: Performs support maintenance on electronic systems of Improved Continuous Wave Acquisition Radar (ICWAR) and Improved High Power Illuminator Radar (IHIPIR); operates and performs organizational maintenance on Support Maintenance Test Equipment (SMTE) Shops 2 and 3, Mobile Team Shop (MTS), and system associated test equipment employed in maintenance of the ICWAR and IHIPIR; and performs support maintenance, as authorized, on associated system peculiar portable test equipment. **EQUIPMENT MAINTENANCE.** Tests and adjusts components to specific tolerances and determines shortcomings and malfunctions in electronic assemblies, subassemblies, modules, and circuit elements with common and system special-design test equipment. Repairs unserviceable items by removing and replacing defective components and parts. Determines serviceability and disposition of defective assemblies, subassemblies, modules, and circuit elements. **INSPECTION.** Performs quality control measures. Serves on inspection teams.

MOSC 24K20: Performs duties shown in preceding level of skill and provides technical guidance to lower grade personnel. **INSPECTION.** Performs initial and final type checkout and inspection of designated system items and their assemblies and sub-assemblies. **EQUIPMENT MAINTENANCE.** Installs equipment modifications. Provides technical assistance to supported units. Completes maintenance and supply forms.

MOSC 24K30: Supervises duties shown in preceding levels of skill. Establishes workloads and repair priorities. **SUPERVISION.** Recommends procedures for receipt, storage, inspection, testing and repair of items. Implements quality control measures. Supervises inspection and maintenance teams. Organizes and conducts on-the-job training programs. Determines faulty work practices and demonstrates proper maintenance and troubleshooting techniques. Establishes and keeps maintenance records. Prepares maintenance reports.

QUESTIONNAIRE

FM 9-24K/TG

As the user of this manual, you are a vital member of our writing team. Please provide us your opinion and suggestions by filling out this questionnaire. Be sure to include your name, AUTOVON number, and unit so we can follow up on your suggestions.

UNIT ADDRESS _____ AUTOVON _____
NAME _____
DUTY POSITION _____ RANK _____
TIME IN GRADE _____ TIME IN SERVICE _____

1. Did the Introduction explain to you the purpose of the manual? ☐ Yes ☐ No

2. Did the organization of the tasks help you plan your training? ☐ Yes ☐ No

3. Are there any tasks that should be added? ☐ Yes ☐ No

4. Are there any tasks that should be deleted? ☐ Yes ☐ No

5. Did you disagree with the skill level assigned to any task? ☐ Yes ☐ No

6. Were there any problems in relating the Trainer's Guide to the Soldier's Manual? ☐ Yes ☐ No

7. Did you disagree with the training site selected for any task? ☐ Yes ☐ No

8. Did you find any errors? If so, please list. ☐ Yes ☐ No

9. Did you have any trouble understanding this manual? ☐ Yes ☐ No
If your answer is Yes, which part(s) was unclear?

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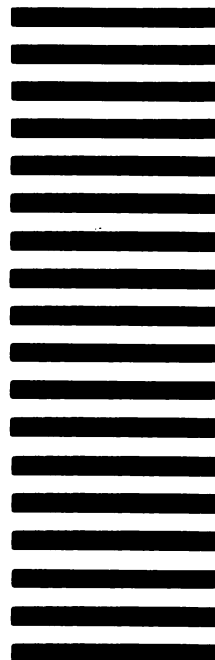
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30 NOVEMBER 1981

By Order of the Secretary of the Army:

E. C. MEYER
General, United States Army
Chief of Staff

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ROBERT M. JOYCE
Brigadier General, United States Army
The Adjutant General

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